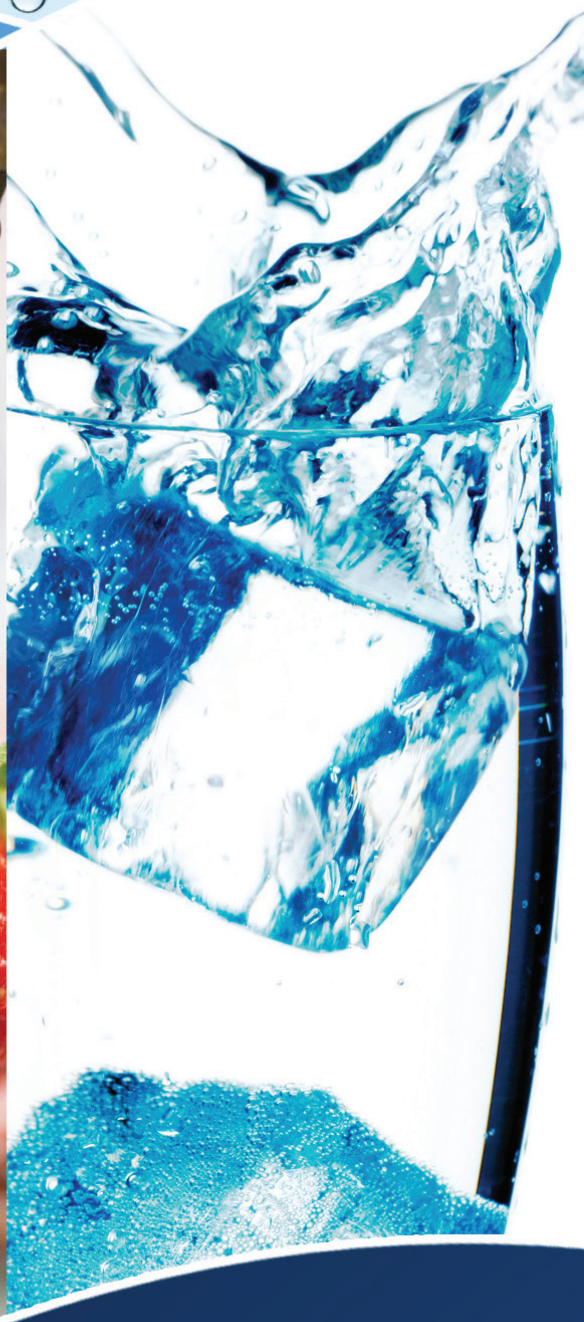
ANNUAL WATER QUALITY REPORT

Water Testing Performed in 2014



Presented By

Utilities Department
City of San Luis Obispo

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: 4010009

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

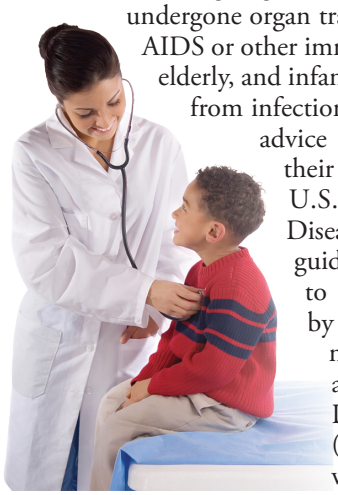
Please let us know if you ever have any questions or concerns about your water.

Note about Fluoride

Our water system treats your water by adding fluoride to the naturally occurring level to help prevent dental caries in consumers. State regulations require the fluoride levels in the treated water be maintained within a range of 0.7 - 1.3 ppm, with an optimum dose of 0.8 ppm. Our monitoring showed that the fluoride levels in the treated water ranged from 0.1 - 0.9 with an average of 0.62 ppm. Information about fluoridation, oral health, and current issues is available from http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.



Community Participation

City Council meetings are held on the first and third Tuesdays of each month at 6:00 p.m. at City Hall, 990 Palm Street, San Luis Obispo, California. A public comment period is held at the beginning of each meeting.

Use Water Wisely

As drought conditions continue to grip the region and the State, it is important for all of us to remember to continue to use water wisely. Rainfall during the past two years has been substantially less than normal, with 2013 being the driest since rainfall records have been kept in the county. Although the community's investment in a multi-source water supply is keeping the water supply situation relatively stable for the coming years, changing weather patterns and extreme drought conditions could be the "new normal" for the Central Coast.

The State Water Resources Control Board has mandated the curtailment of outdoor watering during the upcoming year and has adopted regulations aimed at preventing water waste. The mandatory three-day-a-week water restrictions will remain in effect through the summer and fall, and possibly longer depending on the rainy season this year.

Other mandatory regulations include:

- No washing down driveways or other hardscapes
- Irrigation runoff is prohibited
- Shut-off nozzles are required when washing vehicles
- Decorative fountains must recirculate water

For more information about these regulations or the services the Utilities Department provides, please visit our Web site at slowater.org or give us a call at (805) 781-7215.

Where Does My Water Come From?

The City of San Luis Obispo is fortunate to have several sources of water. The Salinas Reservoir (also known as Santa Margarita Lake, eight miles east of Santa Margarita), Whale Rock Reservoir (Cayucos), and Nacimiento Lake (16 miles northwest of Paso Robles) are our main supplies. The surface water from the three lakes is treated at the Stenner Creek Water Treatment Plant. At present, well water is used to meet a small percentage (2%) of the City's demand for water. The active well is the Pacific Beach Well #1 (Los Osos Valley Road). During 2014, our treatment plant and wells delivered 1.91 billion gallons of water to San Luis Obispo.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include: **Microbial Contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; **Inorganic Contaminants**, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; **Pesticides and Herbicides**, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production and that can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems; **Radioactive Contaminants**, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

Assessments of the drinking water sources for the City of San Luis Obispo have been conducted. These sources include Salinas Reservoir, Whale Rock Reservoir, Nacimiento Lake, Pacific Beach Well, and Fire Station #4 Well. To request a summary of an assessment, contact Jeff Densmore, District Engineer, Santa Barbara District, at (805) 566-1326, or the City of San Luis Obispo at (805) 781-7215.

A copy of the complete assessment is available from the SWRCB Division of Drinking Water, 1180 Eugenia Place, Suite 200, Carpinteria, California, 93013, or the City of San Luis Obispo, 879 Morro Street, San Luis Obispo, California, 93401.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please contact Dean Furukawa, Water Treatment Plant Supervisor, at (805) 781-7566 or dfurukawa@slocity.org.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2014	1	0.6	0.112	ND–0.21	No	Erosion of natural deposits; residue from some surface water treatment processes
Barium (ppm)	2014	1	2	0.043	ND–0.13	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2014	[4.0 (as Cl2)]	[4 (as Cl2)]	0.67	ND–1.8	No	Drinking water disinfectant added for treatment
Chromium (ppb)	2014	50	(100)	3.57	ND–14.0	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Control of DBP precursors [TOC][1] (% removal)	2014	TT	NA	26.2	21–33	No	Various natural and man-made sources
Fluoride[2] (ppm)	2014	2.0	1	0.62	0.10–0.90	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids–Stage 2[3] (ppb)	2014	60	NA	20.3	ND–31.0	No	By-product of drinking water disinfection
Gross Alpha Particle Activity (pCi/L)	2011	15	(0)	0.0145	ND–0.029	No	Erosion of natural deposits
Hexavalent Chromium (ppb)	2014	10	0.02	5.36	ND–13.0	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrate] (ppm)	2014	45	45	4.03	ND–6.3	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2[3] (ppb)	2014	80	NA	76.3	7.0–115	No	By-product of drinking water disinfection
Turbidity[4] (NTU)	2014	TT	NA	0.10	0.06–0.10	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT	NA	100%	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	0.3	0.114	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2013	15	0.2	0.9	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2014	200	NS	112	ND–210	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2014	500	NS	30.7	28–34	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2014	300	NS	150	ND–400	No	Leaching from natural deposits; industrial wastes
Specific Conductance (micromhos)	2014	1,600	NS	715	652–830	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2014	500	NS	68	30–115	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2014	1,000	NS	397	360–460	No	Runoff/leaching from natural deposits

UNREGULATED CONTAMINANT MONITORING REGULATION 3 (UCMR3)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Chlorate (ppb)	2014	245	120–330
Molybdenum (ppb)	2014	2.55	ND–3.5
Strontium (ppb)	2014	363	260–420
Vanadium (ppb)	2014	3.7	3.0–5.2

[1] Total organic carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection by-products such as TTHMs and HAA5s. The City's TOC reduction requirement was 25% based on a running annual average calculated quarterly.

[2] The City currently adds fluoride to the treated water produced by the water treatment plant to achieve an optimum target residual of 0.8 ppm. Some limited areas in the City along Los Osos Valley Road receive a blend of surface water and ground water that may have a lower fluoride residual.

[3] Regulatory compliance is determined based on the Locational Running Annual Average (LRAA).

[4] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Definitions

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

micromhos: A measure of electrical conductance.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.